

b) Amendments to the Claims

Please add new claims 8-16 and amend Claims 1-3 and 5-7 as follows. The status of all the claims is listed below.

1. (Currently Amended) An electron source manufacturing apparatus comprising:

(a) a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon, ~~wherein the support has a temperature adjuster for adjusting a temperature of the substrate;~~

(b) a vessel which has a gas inlet port and a gas exhaust port and covers part of the substrate;

(c) a gas controller for introducing and exhausting gas into and from said vessel; and

(d) a voltage applier for applying a voltage to the conductor, wherein the groove is arranged along a periphery of the fixing member
~~a periphery of a region where the conductor is formed on the substrate is arranged along the groove.~~

2. (Currently amended) An electron source manufacturing apparatus comprising:

(a) a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor comprising a plurality of ~~conductors~~

units each comprising a pair of electrodes and a conductive film formed between the electrodes;

(b) a vessel which covers part of the substrate;

(c) a gas controller for introducing and exhausting gas into and from a space defined by said vessel and the substrate; and

(d) a voltage applier for applying a voltage to each conductor,

wherein the groove is arranged so as not to be overlapped with the fixing member and so as to surround the fixing member

~~a periphery of a region where the plurality of conductors are formed on the substrate is arranged along the groove.~~

3. (Currently amended) An electron source manufacturing apparatus comprising:

(a) a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon;

(b) a vessel which covers part of the substrate and which ~~form~~ forms a space including the conductor, wherein the space is defined by the vessel and the substrate; and

(c) a voltage applier for applying a voltage to the conductor,

wherein the groove and the fixing member are arranged side-by-side, and the groove is arranged so that the fixing member is surrounded by the groove a
~~periphery of a region where the conductor is formed on the substrate is arranged along the~~
~~groove.~~

4. (Previously Presented) An apparatus according to any one of claims 1-3, in which the groove is substantially rectangular.

5. (Currently Amended) An apparatus according to any one of claims 1-3, in which an inner end of the groove is located not less than 1 mm inward from a the periphery of the conductor.

6. (Currently Amended) An apparatus according to any one of claims 1-3, in which an outer end of the groove is located not less than 10 mm outward from a the periphery of the conductor.

7. (Currently Amended) An electron source manufacturing apparatus comprising:

(a) a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon; wherein the support has a temperature adjuster for adjusting a temperature of the substrate; and

(b) an exhaust device for depressurizing an inside of the groove,
~~a vessel which has a gas inlet port and a gas exhaust port and covers part of the substrate;~~

(c) ~~a gas controller for introducing and exhausting gas into and from said vessel; and~~

(d) ~~a voltage applicer for applying a voltage to the conductor;~~
wherein the groove and the fixing member are arranged side-by-side and the groove is arranged so that the fixing member is surrounded by the groove.

~~a periphery of a region where the conductor is formed on the substrate is arranged along the groove and between opposed walls of the groove.~~

8. (New) An apparatus according to any one of claims 1-3 and 7, wherein said fixing member is an electrostatic chuck.

9. (New) An electron source manufacturing apparatus comprising:
a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon,
wherein the groove is arranged along a periphery of the fixing member.

10. (New) An electron source manufacturing apparatus comprising:
a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon,
wherein the groove is arranged so as not to be overlapped with the fixing member and so as to surround the fixing member.

11. (New) An electron source manufacturing apparatus comprising:
a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon,
wherein the groove and the fixing member are arranged side-by-side, and the groove is arranged so that the fixing member is surrounded by the groove.

12. (New) An electron source manufacturing apparatus comprising:

a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon,

wherein an inner end of the groove is located not less than 1 mm inward from a periphery of the conductor.

13. (New) An electron source manufacturing apparatus comprising:

a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon,

wherein an outer end of the groove is located not less than 10 mm outward from a periphery of the conductor.

14. (New) An electron source manufacturing apparatus comprising:

a support having a fixing member and having a groove on its surface, which supports a substrate having a conductor formed thereon,

wherein an inner end of the groove is located not less than 1 mm inward from a periphery of the conductor and an outer end of the groove is located not less than 10 mm outward from the periphery.

15. (New) A method for manufacturing an electron source comprising:

operating an apparatus for manufacturing an electron source according to any one of claims 1-3, 7 and 9-14.

16. (New) A method for manufacturing an electron source for a display device comprising:

manufacturing the electron source employing an apparatus for manufacturing an electron source according to any one of claims 1-3, 7 and 9-14.